FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-8080

Royal Ridge Farms

SUMMARY

Royal Ridge Farms processes freshly harvested sour and sweet cherries for approximately 45-60 days each year. Process wastewater is screened and sent to a lined, aerated evaporative lagoon. Some wastewater has been used for dust control. Increased flows have exceeded the evaporation from the lagoon. Royal Ridge submitted information to support their permit application to spray irrigate wastewater onto a seven acre site for the purpose of landscape irrigation and dust control.

Based on low hydraulic and nutrient loading, high evapotranspiration, and a limited seasonal application, the permit will allow the landscape irrigation/dust control application of wastewater. Annual soil sampling, monthly wastewater testing and irrigation/crop reporting will be required to assess the operation of the site. Test values will be compared to baseline and design data. A five year soils trend analysis will also be required.

The continuation of the landscape irrigation/dust control plan to manage the wastewater will depend on the test data submitted by the Permittee.

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. **ST-8080** . The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to waters of the State of Washington. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.162) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. Regulations adopted by the state include procedures for issuing permits (Chapter 173-216 WAC), and water quality criteria for ground waters (Chapter 173-200 WAC). They also establish requirements which are to be included in the permit.

This fact sheet and draft permit are available for review by interested persons as described in Appendix A--Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D--Response to Comments.

GENERAL INFORMATION	
Applicant	Royal Ridge Farms
Facility Address	13215 Road F S.W. Royal City, WA 99357
Type of Facility	Sweet and Sour Cherry processing
Type of Treatment:	Evaporation and landscape irrigation/dust control
Discharge Location	Latitude: 46° 53' 10" N Longitude: 119° 37' 02" W.
Legal Description of Application Area	South of state hiway 26 and along Road F S.W.; Approximately seven (7) acres located in the SW ¼ of Sec. 7, T. 16N, R26 E WM. (Grant Co.) Latitude: 46° 53' 10" N. Longitude: 119° 53' 10" W.
Contact at Facility	Dan Da Silva 509.346.1520
Responsible Official	Kevin Dorsing Title: President Address: 13215 Road F S.W. Telephone: 509.346.1520

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

The Royal Ridge Farms cherry processing facility is located in southern Grant County approximately one mile S.E of the town of Royal City and south of state hiway 26. The facility was constructed and began operations in 2001. Freshly harvested sour cherries are brought to the facility in chilled water containers and are kept cool until processed. The sour cherry season lasts approximately 30 days; mid-July to mid-August. A sweet cherry line will start in 2004 and processing will be for approximately three weeks; June and July.

INDUSTRIAL PROCESSES

Individual chilled water containers are removed from the onsite refrigerated storage and dumped into a tank where the cherries are lifted via a conveyor into the facility and de-stemmed. The cherries are then mechanically pitted and packaged into five gallon containers and frozen. According to the permit application, approximately 3 million pounds of sour cherries are packaged each week. The new sweet cherry line will produce 150 tons/week.

Work at the facility is 20hrs/day, 6 days per week, for a total of 6 weeks.

Non-contact cooling water is another waste stream that discharges directly to the pond. According to the 2003 O&M Manual (Royal Ridge, 2003), it is make-up water used in the defrost cycle for the refrigeration system. It is generated 24hrs/day as long as the refrigeration is used. Information on the permit application shows this flow to be approximately 6000 gallons per month.

TREATMENT PROCESSES

All process wastewater is collected in a floor drain system and sent to a wet well where it is pumped to a screen (0.060” mesh). Some of the screened wastewater is pumped back to the floor drain system to augment the flow through the collection system. Excess wastewater is pumped to a lined lagoon (60 mil HDPE) located near the facility; Fig. 1. Two surface aerators keep the pond somewhat mixed for odor control and aid in evaporation.

The cherry pits are collected in a separate flume system. This waste stream is sent to a hydroscreen to remove the pits.

<u>System Design</u>

The treatment system was originally designed to manage all process wastewater for sour cherries by evaporation from the pond (Mountain States Construction, 2001), with some use of the water for dust control via truck application. The lagoon was sized (37,500 ft^2; 2.8 MG) based on the following estimated flows:

Inflow:	38,400 gpd max daily 30,720 gpd max monthly 921,600 gal. total annual
Evaporation:	~ 888,000 gal/year
Dust control:	~ 86,000 gal/month (May-August)

After three years of operation it was determined that evaporative loss from the pond was insufficient to manage the largest volume of process wastewater produced each year. It was determined that a pond area of 4 acres was needed for sufficient evaporation to occur to manage the bulk of the process wastewater produced each year.

Instead of enlarging the size of the lagoon, Royal Ridge submitted a proposal for consideration as meeting Ecology's guidelines for a *de minimus* discharge (Kennedy/Jenks, 2004). A *de minimus* discharge to a land treatment system could result in reduced monitoring, depending on the site's geology/hydrogeology, soils, and loading.

Royal Ridge proposed that wastewater be applied onto a seven acre site that is adjacent to the processing facility (Fig. 2) for the purpose of landscape irrigation to better control dust generation. Only process wastewater would be applied (no supplemental water available) and would only occur during the summer months (June-September). The amount of wastewater added would be well below the evapotranspiration rate for the area; approximately 50 inches. A water budget analysis based on the average and 1-in-10 year precipitation values (5.8" and 10.4", respectively) indicated no leaching would occur.

The proposal is essentially an enhanced dust abatement program to minimize dust generation surrounding the processing facility. Since the amount of wastewater applied to the field will be insufficient to support optimum plant growth, the mixed grass/shrub vegetation of the site will be dormant most of the year.

GROUND WATER

A cursory investigation of the soils and ground water was presented in the *de minimus* proposal report (Kennedy/Jenks, 2004). The area is underlain by basalt of the Columbia River Basalt Group. The basalt is at or near the ground surface at the sprayfield site; soil depth is minimal.

A survey of well logs in the four sections surrounding the site showed three ground water supply wells. All were completed at various depths in the basalt; 534ft, 200ft, and 140ft. There are no records of shallow wells completed in the upper alluvium or sediments.

PERMIT STATUS

The previous permit for this facility was issued on February 26, 2002.

An application for permit renewal was submitted to the Department on June 21, 2004 and accepted by the Department on June 21, 2004.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on July 25, 2003

During the history of the previous permit, the Permittee has violated the average monthly and maximum daily flow limitations based on Discharge Monitoring Reports (DMRs) submitted for the period April 2002 – December 2003; Addendum 1.

The flow limits are:

	Avg. Monthly	Max. Daily
August to June	6000 gpd	38,4000 gpd
July	30,720 gpd	38,400 gpd

The previous permit required the submittal of a Solid Waste Plan by July 31, 2002. A plan has not been submitted.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The wastewater discharge from the processing facility is characterized for the following parameters as given in the permit application. Values for the conventional parameters are based on 5 samples, while cation/anion values are based on 1 sample.

Table 1: Wastewater Characterization

Parameter	Concentration
BOD_5	1010 – 4054 mg/L; avg = 2638 mg/L
Total dissolved solids	766 - 928 mg/L; avg = 824 mg/L
pH	4.1 – 6.2 s.u.
Nitrate-N	0.3 – 9.4 mg/L; avg = 3 mg/L
TKN (as N)	34.2 – 51.7 mg/L; avg = 40 mg/L
Calcium	48 mg/L
Magnesium	30 mg/L
Potassium	239 mg/L
Sodium	124 mg/L
Sulfate	7.6 mg/L

The values reported in the permit application generally compare to those reported in the monthly DMRs for the wastewater in the lagoon; Addendum 1. The concentrations for sodium, potassium, and magnesium reported in the April 2002 DMR are very high and skew the average values.

Concentrations of total dissolved solids and TKN are low compared to vegetable and potato processors in the area (2500 and 150 mg/L, respectively) that utilize land treatment for their process wastewater, while the BOD concentration is only slightly lower.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be either technology- or water quality-based. Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not pollute the waters of the State. The minimum requirements to demonstrate compliance with the AKART standard were determined in the engineering report (Royal Ridge Farms, Sour Cherry Packing Facility, Evaporative Waste Treatment Lagoon, Engineering Report; Mountain States Construction, 2001), in conformance with *Guidelines for the Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, May 1993.

The approved engineering report includes specific design criteria for this facility. Water quality-based limitations are based upon compliance with the Ground Water Quality Standards (Chapter 173-200 WAC).

The more stringent of the water quality-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). The following permit limitations are necessary to satisfy the requirement for AKART:

1. Wastewater shall be land applied via spray irrigation not to exceed agronomic rates (as defined in the Department's ground water implementation guidance) for total nitrogen and water, and at rates for other wastewater constituents that are protective of background ground water quality.

2. Total nitrogen and water shall be applied to the sprayfields as determined by a current irrigation plan.

3. The system must be operated so as to protect the existing and future beneficial uses of the ground water and not cause a violation of the ground water standards.

De Minimus discharge

Ecology's Permit Writer's Manual contains guidance for allowing the *de minimus* discharge of food process wastewater onto land via irrigation. It is a site specific, case-by-case determination based on information provided by an engineering report. It must be shown that the application will have a minimal potential impact to the ground water. Sites determined to have a *de minimus* discharge can have less intensive testing requirements in the permit.

The proposed *de minimus* site is adjacent to the cherry processing facility (Fig. 2). The area is located in the agriculture-based central basin of the state where the average rain fall is approximately 6 inches, summer time temperatures are very warm, and winter temperatures are mild. The topography is gently rolling with no nearby surface waters, and the vegetation of the sprayfield is generally shrubs and grasses.

The design of the *de minimus* discharge includes flows from the new sweet cherry line. Under average rainfall conditions and an annual discharge of 4.3 MG:

Wastewater Irrigation:	June through September; 13.8 inches (net)
Nitrogen load:	100 lbs N/acre (net)
BOD load:	266 lbs/acre/day (avg)
Inorganic dissolved solids load:	2500 lbs/acre

Based on the 1-in-10 year rainfall conditions, the proposed net monthly application of water for June through September (1.4 – 6.6 inches) is less than the evapotranspiration rates (5.2 – 9.6 inches). Therefore no leaching of water below the root zone is predicted. In addition, the evapotranspiration rate for each month (June-Sept) exceeds the estimated net wastewater application rate, therefore the maximum available water storage capacity for the site (2 inches) is never exceeded.

The estimated BOD load for the average rainfall condition (266 lbs/ac/day) exceeds the generally accepted value of 100 lbs/ac/day to control odors and anaerobic soil conditions. The nitrogen load value is low when compared to vegetable/potato land treatment systems in the area. The vegetation on the irrigated landscape site will not be harvested and the nitrogen requirements are not known; therefore the level of treatment is not known. The *de minimus* report describes the basis of design for a landscape/dust control system, not a land treatment system.

Ecology's *de minimus* guidance was written for the irrigation of food process wastewater that is applied infrequently, on a limited area, and/or at a nutrient loading rate that is well below the crop requirement, and for the purpose of treatment. The information presented by Royal Ridge appears to show minimal potential impact to the ground water, but does not show that the site will provide treatment.

Therefore, the proposal submitted by Royal Ridge does not appear to meet the entire definition of a *de minimus* discharge of food process wastewater. Rather, the proposal is for an expanded dust control plan via landscape irrigation. However, the information presented by Royal Ridge appears to meet all of the other requirements for a *de minimus* discharge; a low potential to impact ground water based on the estimated volume of irrigated wastewater, a high evapotranspiration rate, a short irrigation season, low nitrogen loading rates, the overall setting and size of the site, and the geology/soils of the area. In addition, it is recognized that some treatment will occur even though a harvested crop will not be grown. The high BOD:TKN ratio (65:1) indicates a potential for mineralization and the loss of nitrogen via denitrification. However, the high BOD loading could cause noxious odors to develop.

While the proposal does not meet Ecology's *de minimus* requirements, the permit will allow the landscape irrigation/dust control wastewater management plan, but with the following requirements:

1. Soil monitoring of the site will be required and the results reported annually. The sampling requirements will be similar to a soil monitoring program that was submitted by Royal Ridge Farms as part of their *de minimus* proposal (Kennedy/Jenks, 2004). Seven sampling sites have been permanently located at the site (Fig. 2). Samples were taken in May 2004 to serve as a baseline to measure trends or changes in the soil chemistry.

   A continuous five year trend analysis for nitrate, ammonia, and soluble salts for the site will be required and reported each year in an irrigation report. These values will also be compared to the baseline values determined from samples collected in May 2004 (Addendum 1).

2. The total annual volume of wastewater added to the fields will be limited to 4.3 MG.

3. A water budget for the irrigation site will be determined and reported each year similar to what was prepared for the *de minimus* report. It will include the monthly net process water volume irrigated and the leaching fraction.

4. An annual irrigation report will be required (a description follows).

5. Upon notification from Ecology of unacceptable odors from the pond/landscape irrigation site, Royal Ridge will either stop all landscape irrigation or immediately take all necessary measures to eliminate odors. These include implementing odor control at the pond site and/or reducing the BOD load to $\leq$ 100 lbs/acre/day.

   Unacceptable odors will be determined by Ecology from, in part, site visits and odor complaints.

The continuation of the landscape irrigation will depend on the results of the test data and odor complaints from the facility. The General Conditions of the permit allow Ecology to modify the permit to stop the use of the sprayfield site and require the evaluation and implementation of another method to meet the AKART requirement for the wastewater.

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the Ground Water Quality Standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria as defined in Chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 2: Ground Water Quality Criteria

Total Dissolved Solids	500 mg/L
Nitrate	10 mg/L

The Department has reviewed existing records and is unable to determine if background ground water quality is either higher or lower than the criteria given in Chapter 173-200 WAC. Therefore, the Department will use the criteria expressed in the regulation in the proposed permit. Based on the information presented in the *de minimus* report (Kennedy/Jenks, 2004), the discharges authorized by this proposed permit are not expected to interfere with beneficial uses.

COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED FEBRUARY 26, 2002

Table 3: Comparison of Previous and New Limits

Parameter	Existing Limits	Proposed Limits
Flow (August to June)	Avg monthly: 6000 gpd	N/A
	Max. Daily: 38,400 gpd	
Flow (July)	Avg. monthly: 30,720 gpd	N/A
	Max. Daily: 38,400 gpd	
Flow (from processing facility)	N/A	Max. Daily: 300,000 gpd

The flow limits in the existing permit were based on design values for the evaportive lagoon given in the engineering report (Mountain States Const., 2001). Since the lagoon was constructed, several changes have occurred at the facility which has caused a change in the process wastewater flows to the lagoon:

1. A sweet cherry line has been added to the process facility. Depending on weather conditions, the sour and sweet cherries can be harvested and processed separately, or both cherry lines can be harvested and processed together. When they are processed simultaneously, flows from the processing facility can reach a peak daily flow of approximately 300,000 gallons per day (Royal Ridge, 2004b).

   This higher flow volume was evaluated relative to the lagoon capacity and proposed *de minimus* wastewater discharge management plan (Royal Ridge, 2004b). The lagoon capacity would not be exceeded. The higher peak daily flow value would result in an additional 3 lbs/acre of nitrogen and 60 lbs/ac TDS, and an additional 0.4 inches of wastewater applied in September.

2. A flow meter was recently installed to measure flows from the processing plant to the storage lagoon. Prior to the meter, flows from the processing facility were estimated based on the volume of cherries processed per day. Results from the flow meter have shown higher flows from the processing facility than previously estimated.

Based on the information provided by the Permittee, the maximum daily flow limit of 300,000 gpd will be placed in the permit and will reflect the changes that have occurred at the facility since the facility was constructed and originally permitted.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, that ground water criteria are not violated, and that effluent limitations are being achieved (WAC 173-216-110).

WASTEWATER MONITORING

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

CROP MONITORING

The permit will not require crop monitoring of the site since this is not a treatment site. However, a Compliance Schedule will be in the permit that will require the Permittee to map and identify the vegetation at the landscape site.

SOIL MONITORING

As described previously, soil monitoring will be required and the testing requirements will be similar to the soil monitoring plan submitted by Royal Ridge as part of their *de minimus* report (Kennedy/Jenks, 2004). Results of the testing will be reported each year. It will include a five year trend analysis of the nitrate and soil conductivity, and will compare the test data to the base line values from soil sample collected in 2004 before the site was used for wastewater application.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110).

FACILITY LOADING

The design criteria for the landscape area is taken from the 2004 *de minimus* engineering report prepared by Kennedy/Jenks (2004) and supplemental information provided by Royal Ridge(2004b) for the combined sour and sweet cherry lines.

Total annual flow to the landscape site for irrigation and dust control:	4.3 MG

The permit requires the Permittee to maintain adequate capacity to treat the flows and waste loading to the treatment plant (WAC 173-216-110[4]). For significant changes in loadings to the treatment works, the permit requires a new application and an engineering report (WAC 173-216-110[5]).

IRRIGATION REPORT

The irrigation report is required to support the estimated loadings in the *de minimus* engineering report, and any changes made in the irrigation/pond system. The reporting requirements for this site will differ somewhat from what is required for permitted land treatment systems because this is a landscape/dust control system, not a treatment system. This report will contain:

1. Wastewater, BOD, nitrogen and salt loads for the previous year, with a comparison to the estimated values in the *de minimus* report.
2. A water balance that includes an estimation of the leaching fraction.
3. The results of the soil monitoring, the five year trend analysis for nitrate-N, ammonia-N, and soluble salts, and the comparison of the soils data to the baseline soil values collected in May 2004.
4. A description of any changes made in the irrigation/pond system.

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

Royal Ridge has submitted an O&M manual (Royal Ridge, 2003).

The following Best Management Practices will be required in the permit as part of the operation of the landscape irrigation for dust control:

1. Application rates shall be controlled to prohibit runoff to roadside ditches and not cause erosion.
2. Time the applications for dust control to minimize wash-off by rain events.
3. Application rates shall not cause a public nuisance such as odors.
4. The water shall not be allowed to enter into any Columbia Basin Irrigation Project conveyance structure, or surface water.

SOLID WASTE PLAN

As described previously, the Permittee has not submitted a Solid Waste Plan as required by the previous permit. It is understood that the pits are hauled off site and applied onto private roads.

The permit will again require the submittal of a Solid Waste Plan that will describe the management of solid wastes produced at the facility.

GROUND WATER QUALITY EVALUATION (HYDROGEOLOGIC STUDY)

An evaluation of the ground water at the site will not be required during this permit cycle. Depending on the results reported in the annual irrigation report, a hydrogeologic evaluation of the site may be required in a future permit to allow the continuation of the landscape irrigation wastewater management plan.

IRRIGATED WASTEWATER FLOW METER

To allow the determination and reporting of wastewater and nutrient loads to the landscape site in the annual irrigation report, a meter to measure flow from the pond to the site will be required. This requirement will be placed in Section S5 (Operation and Maintenance) of the permit. The meter will be installed no later than September 1, 2005.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to ground water permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the payment of permit fees. Condition G10 describes the penalties for violating permit conditions.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, and to protect human health and the beneficial uses of waters of the State of Washington. The Department proposes that the permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Kennedy/Jenks Consultants, 2004. Proposal for de Minimus Land Application of Process Water, Royal Ridge Farms/Royal Ridge Fruit Company, April.

Mountain States Const., 2001. Royal Ridge Farms, Sour Cherry Packing Facility, Evaporative Waste Treatment Lagoon, Engineering Report, May.

Royal Ridge Farms, 2003. Wastewater System Operation and Maintenance Manual, July.

Royal Ridge Farms, 2004a. Soil Monitoring Program to Assess Level of Treatment and Potential Impacts of Process Water Irrigation, Royal Ridge Fruit and Cold Storage, Royal City, Washington. May.

Royal Ridge Farms, 2004b. Wastewater discharge amendment. Letter dated September 13, 2004.

Washington State Department of Ecology, 1993. Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems, Ecology Publication # 93-36. 20 pp.

Washington State Department of Ecology.

Laws and Regulations(http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information
(http://www.ecy.wa.gov/programs/wq/wastewater/index.html

Washington State Department of Ecology, 1996. Implementation Guidance for the Ground Water Quality Standards, Ecology Publication # 96-02.

Washington State University, November, 1981. Laboratory Procedures – Soil Testing Laboratory. 38 pp.

APPENDICES

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this Fact Sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on 28 June and 5 July 2004 in the Columbia Basin Herald to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on October 1, 2004 in the Columbia Basin Herald to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
4601 North Monroe Street
Spokane, WA 99205-1295

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 509.329.3524, or by writing to the address listed above.

The Fact Sheet and permit were written by Don Nichols.

APPENDIX B--GLOSSARY

Average Monthly Discharge Limitation--The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Engineering Report--A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Soil Scientist--An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5,3,or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Dissolved Solids--That portion of total solids in water or wastewater that passes through a specific filter.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C--RESPONSE TO COMMENTS

No comments were received during the public comment period.